ABBREVIATIONS AND ACRONYMS

ACA attenuation with respect to clean air (or clear air)

ACKS acknowledgements

ACTS Advanced Communications Technology Satellite

ACTSPP ACTS preprocessing program (translates raw beacon data)

AFS attenuation with respect to free space AGA attenuation due to gaseous absorption

APL Applied Physics Laboratory

APSW Advanced Communications Technology Satellite (ACTS) Propagation

Studies Workshop

APT ACTS Propagation Terminal

AR attenuation ratio

ARD radiometrically derived attenuation

ARS statistical attenuation ratio ATM asynchronous transfer mode

BER bit error rate CCIR (see ITU-R)

CDF cumulative distribution functions

CHILL University of Chicago and Illinois Water Survey (radar)

CMU Carnegie Mellon University

COAG group of surface weather stations in Colorado

COAGMET (same as COAG)

COMSTAR communications satellite

CONSTMM calibration constant for successive months

CPA copolarized attenuation
CRG capacitive rain gauge
CSU Colorado State University

DAH Dissanayake, Allnutt, and Haidara (rain attenuation model, also called the

USA model)

DRX data receiving (collection)

Eb/No energy per bit by noise density ratio

ExCell exponential cell

FAU Florida Atlantic University

FD fade duration

FEC forward error correction

FS fade slope FTS field test site

GBS Global Broadcast System

GEO geostationary Earth orbit GPS Global Positioning System

HDFS high-density fixed services

HDR high data rate

IEEE The Institute of Electrical and Electronics Engineers, Inc.

IF interfade duration

INMARSAT International Maritime Satellite

IP internet protocol

ITU-R International Telecommunications Union—Radiocommunications

JHU Johns Hopkins University

Kdp specific differential phase

LBNL Lawrence Berkeley National Laboratory

Ldr linear depolarization ratio

LEO low Earth orbit

LeRC Lewis Research Center (now Glenn Research center at Lewis Field,

Cleveland, OH)

LET link evaluation terminal

LMSS Land Mobile Satellite System

m.a.s.l. meters above sea level

MARECS-B2 (International Marine Satellite Consortium satellite)
Mesonet mesoscale meteorological network of Oklahoma

MPM Microwave Propagation Model (basically Liebe's atmospheric model)

NCDC National Climatological Data Center

NGO nongeostationary Earth orbit

NOAA National Oceanographic and Atmospheric Administration

NS network simulator

OU Oklahoma University (Norman, OK)

PARC Palo Alto Research Center PDF probability density function

R-H Rice-Holmberg (rain model)
RHI range height indicator

RHV (%) cross-correlation coefficient

RMS root mean square

Satcom satellite communications

SCTC Space Communications Technology Center

SRS Space Research Service

STel Stanford Telecomunications, Inc., Reston, VA

TBG tipping bucket gauge
TBRG tipping bucket rain gauge

T-C two-component

TCP transmission control protocol

TDRSS Telecommunications and Data Relay Satellite System

TEC total electron content
TSR transmit and stay resident

UAF University of Alaska, Fairbanks
UBC University of British Columbia
UCB University of California at Berkeley

URSI The International Union of Radio Science

USAT ultrasmall-aperture terminal (transportable 36-cm) station

USC/IS:I University of Southern California's Information Sciences Institute

USF University of South Florida

UTC universal time coordinated (Greenwich mean time)

VSAT very small-aperture terminal

wrt with respect to

WWV plug-in card in the ACTS propagation terminal's collection PC, which is

used to receive the standard time from Colorado and adjust the PC clock

accordingly

XPD cross-polarization discrimination

Zdr differential reflectivity
Zhh horizontal reflectivity